

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
2. A recombinant expression cassette comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
3. A vector comprising a recombinant expression cassette comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
4. A host cell comprising a recombinant expression cassette comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
5. The host cell of claim 4 wherein the cell is a plant cell.
6. The host cell of claim 5 wherein the cell is selected from the group consisting of: maize, sorghum, wheat, tomato, soybean, alfalfa, sunflower, canola, cotton, and rice.
7. A transformed plant comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
8. A plant seed comprising a polynucleotide having at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10.
9. A method of reducing pathogenicity of a fungus producing fumonisin or a structurally related mycotoxin, comprising:

- a) transforming a plant cell with a vector comprising a polynucleotide operably linked to a promoter wherein the polynucleotide has at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10;
 - b) growing the plant cell under plant growing conditions; and
 - c) inducing expression of said polynucleotides for a time sufficient for amounts of the fumonisin esterase and APAO enzymes to accumulate to levels that can inhibit the fungus.
10. A method of making an APAO enzyme comprising the steps of:
 - a) expressing a polynucleotide operably linked to a promoter in a recombinantly engineered cell, wherein the polynucleotide has at least 95% sequence identity to a polynucleotide selected from the group consisting of: SEQ ID NO:5 and SEQ ID NO:10;
and
 - b) purifying the enzyme.